

Turning the Tide

on runoff pollution

SC DHEC's Bureau of Water

Winter/Spring 2004

The Beaufort River Buffer Project is a model river buffer for existing urban landscapes...

Inside	
Big Plans for the Beaufort River	
Wetlands.....	2
Attorney Policies Keeping C	
Waters Clean.....	3
Nature.....	3
Innovative Program Funds Stormwater	
Management.....	4
Fish Pass, Fish Activities for	
Fish Water.....	5
SOOTrack With NSGals.....	6

D H E C


PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

Beaufort County's Buffer Beauty

By John D. Holloway, Beaufort County Planning

Beaufort County's natural environment is its greatest resource. It provides an excellent quality of life for its residents, fuels a booming tourism and retirement community industry and provides an abundance of shellfish and other marine delicacies. The quality of Beaufort County's marshes and waterways is vital to the overall health of the community. As more homes and businesses come to Beaufort, providing vegetated buffers adjacent to tidal wetlands can minimize the impacts on the County's estuarine environment.

The Beaufort County River Buffer Project is a model river buffer for existing urban landscapes that serves to educate the community, developers, homeowners, and other interested parties on the importance of natural vegetated buffers along Beaufort County's

waterways. The project is located at the County Government Complex at 100 Ribaut Road, adjacent to the headwaters of Battery Creek. The project was funded by \$20,000 grants through both the South Carolina Forestry Commission and the DHEC-Office of Ocean and Coastal Resource Management.

The site area is roughly 400 linear feet of marsh frontage. Prior to the installation, the site area consisted of a grass lawn with a dozen existing trees. The Beaufort Planning Group, a local landscape architect firm, prepared a landscaping plan. The

more on page 2



New river buffer is an attractive part of the marsh view.

Big Plans for the Bush River Watershed

By Craig O'Dell, Newberry SWCD

The Bush River TMDL (Total Maximum Daily Load) Project is focusing on providing clean water for everyone. Clean water farming is not a new concept for farmers in the Bush River Watershed of Newberry and Laurens counties. In fact, the farmers have exhibited a conservation ethic for many years. However, water samples have shown work is still needed to treat nonpoint sources of pollution (NPS).

The major pollutant that is showing up in the samples is fecal coliform. The sources of nonpoint pollution may come from various land uses, such as septic absorption fields, parking lots, construction sites, pet facilities, cropland, pastureland, forestland or other landuses that are not being properly "tended."

The Bush River TMDL Project is being sponsored by the Newberry Soil and Water Conservation Districts and has many cooperating federal, state and local partners. Together, this partnership is implementing various education and management action plans.

These action plans are targeting concentrated livestock and poultry operations,

ranging livestock operations, and homeowners. Sub-watershed areas are being prioritized to make the most efficient and effective use of the resources in addressing the NPS concern. Within the sub-watersheds, priorities are also being placed on areas that have poor soil conditions, animals close to watercourses, or areas used for manure application. Best management practices will be planned with some being eligible for cost share assistance. As the project advances, follow up monitoring will provide information on accomplishments and/or allow for shifting priorities.

For more information, contact the Newberry Soil and Water Conservation District at (803) 276-1978.



River buffers are an important component of the project.

Beaufort County Buffers

from page 1

plan called for the installation of over 1,300 plants ranging from large trees to shrubs, perennials, and ground cover. Species used in the buffer are mostly native and include plants such as black tupelo and saw palmetto. The Beaufort County Public Works Department provided the labor for the project. They removed the lawn from the site area, installed an irrigation system, and planted the buffer. The landscape architect oversaw the installation of plant materials to insure that proper methods were used.

Buffer Benefits

This buffer isn't just a fine aesthetic addition to the county complex, it serves many important purposes. The root systems of buffer vegetation absorb stormwater and stabilize shoreline soil. The buffer minimizes stormwater pollution by trapping sediments, pesticides and other pollutants. Many wildlife species either live in riparian areas or use them as travel corridors.

Buffers create a sense of place and privacy by framing desirable views and reducing noise from watercraft and from neighbors. They also conceal development from the marsh. Vegetated buffers that utilize carefully chosen view corridors collectively benefit the overall aesthetic qualities of Beaufort County's marshes and waterways and therefore benefit all who use and enjoy them.

For more information on the buffer project, contact the Beaufort County Planning Department at (843) 470-2724.



Antidegradation Policies: Keeping SC Waters Clean

By Andy Miller, SC DHEC

Many associate the Federal Clean Water Act (CWA) with cleaning up polluted waterbodies; however, many of the CWA provisions are targeted at prevention of pollution as well. One of these is known as "antidegradation." One of EPA's definitions of antidegradation is: "Policies which ensure protection of water quality for waterbodies where the water quality exceeds levels necessary to support fish and wildlife uses or which prevent further pollution in waterbodies where water quality does not support those uses". Antidegradation simply means to protect *existing* water quality. South Carolina has incorporated these protections into its water classification and standards regulations.

These regulations specify a tiered approach to providing protections based on existing water quality. Each tier has slightly

different rules for addressing potential new pollution sources.

Tier 1 provides protection for all waters of the state and requires special considerations for those waters that do not currently meet water quality standards. These considerations are meant to ensure that water quality will not worsen.

Tier 2 provides protections for waters that exceed the applicable water quality standards. In South Carolina, a special category similar to Tier 2, called Tier 2 ½, is applied to those waters that meet standards and also have special state significance. These waters are classified as Outstanding Resource Waters (ORW).

Tier 3 deals with the highest quality waters, known as Outstanding National Resource Waters (ONRW), which have been deemed to have special significance at the national level.

In permitting and other regulatory decisions, DHEC considers these tiers. Proposed new activities must undergo an antidegradation review that must be documented and made available for public comment.

For Tier 1, the antidegradation policy requires that no regulated activity should cause the loss of a waterbody use (either ecological or recreational). For waterbodies already not meeting standards, there can be no net increase in the pollutant(s) that cause impairment.

Under Tier 2, the Department requires that any new pollutant discharge proposals receive scrutiny to justify the societal need for the discharge. The review must also demonstrate that no alternatives to the discharge are technologically or

more on page 4

News to Use

Get Involved and Get Money

Do you want to be a solution to polluted runoff? Then look into partnering with local stakeholders in your community to implement a plan to restore an impaired waterbody through Total Maximum Daily Load (TMDL) development and implementation. Financial assistance is available for nonpoint source reduction projects. To find out more, see

www.scdhec.gov/water/html/grants.html.

If you would like to be on the e-mail notification list for proposal opportunities, please send your contact information, including your watershed to tmdl@dhec.sc.gov.

By Deborah Clemons, SC DHEC

Get the Latest

Subscribe now to the new e-newsletter on Saluda-Reedy basin watershed issues. The newsletter is a publication of the Saluda-Reedy Watershed Consortium. The Consortium's mission is to preserve and restore clean, abundant water throughout the watershed.

To subscribe, e-mail your name and contact information to Jason Van Driesche at jasonvand@upstateforever.org.

Innovative Program Funds Stormwater Management

Many localities are struggling with ways to comply with new stormwater requirements outlined in their National Pollutant Discharge Elimination System (NPDES) permits. Now, a company in California is helping to make compliance easier through a program called "Adopt-A-Waterway." The company, Environmental Communication (EC), works with businesses to raise funds to support local governments' stormwater management projects, and to provide public stormwater education resources. In exchange for the funds, the businesses receive recognition on Adopt-A-Waterway signs and other promotional material. EC retains a portion of the funds it raises to support program operation. The EC programs are offered to local governments at no cost and do not require taxpayer dollars.

How does the program work? Once a locality agrees to participate, EC contacts national corporations and local businesses in that area and requests sponsorship. Fifty percent of the sponsorship funds go directly to the local government to allow them to implement stormwater management practices. The other 50 percent is used by EC to support the program—including development of signs, development and distribution of educational materials, solicitation of sponsors, and other program-related costs.

To sponsor the program, businesses "purchase" Adopt-A-Waterway signs that are placed in highly visible traffic areas. The signs integrate the logos of corporate sponsors with a general environmental message, such as "Cleaner Stormdrains, Cleaner

Waterways," which help people make the connection that stormdrains lead directly to waterways. In addition, the signs have specific messages, such as "Pick up after your pets," which help people understand how their individual actions affect the problem.

EC uses part of its share of the sponsorship funds to develop and distribute public outreach and educational materials in each participating locality. This educational program, known as "The Clear Solution," is a community outreach program aimed at improving water quality by inspiring changes in human behavior. The program includes EC-produced printed stormwater education materials (e.g., brochures, newsletters, children's activity books) and public service announcements for local radio, television, and newspapers. All major sponsors in a locality are recognized in "The Clear Solution" printed materials.

The Adopt-A-Waterway program relieves some of the local government's financial burden by providing an incremental, non-tax revenue stream designated for stormwater projects. Local governments also benefit from EC produced outreach and education programs aimed at inspiring communities to take ownership of their piece of the problem.

For more information contact Paul Polizzotto at (800) 890-1185 or paul@adoptawaterway.com, see www.adoptawaterway.com

This article is reprinted with permission and appeared in the September 2003 Issue (#72) of Nonpoint Source News-Notes.

Antidegradation Policies

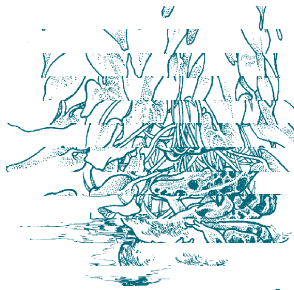
from page 3

economically feasible. For Outstanding Resource Waters (ORW), discharges from domestic, industrial and agricultural waste treatment facilities are not allowed. Stormwater discharges may be allowed provided that no significant reduction in water quality will occur.

Under Tier 3, which applies only to ONRW waters, no permanent discharges (either point source or stormwater) are allowed. At the present time, there are no ONRW waters in South Carolina, but there may be in the future.

Antidegradation is fundamental to the Clean Water Act's overarching goal of achieving and maintaining "fishable and swimmable" water quality for all waters of the United States. DHEC applies antidegradation rules in making its water quality decisions. Through this process, South Carolina will continue to improve the quality of its rivers, streams, lakes and estuaries.

For the South Carolina Water Classification and Standards Regulations 61-68, see: www.scdhec.gov/water/html/reg.html#wcs.



Fresh Faces, Fresh Activities for Fresh Waters

By Meredith Barkley, SC DHEC

Let's start with the new coordinator — that would be me, Meredith Barkley. Allow me to tell you a bit about myself.

I grew up in Columbia and recently graduated from the SC Honors College at USC with a degree in biology. I've worked for SC DNR in aquatic education and SC DHEC in the Watersheds and Planning section of the Bureau of Water. In mid-October, I began as the Water Watch coordinator.

Each Water Watch group has accomplished a lot to protect and preserve South Carolina's water quality since the program's inception. I'm proud to be associated with this program and I look forward to continuing to work with these groups and others across the state.

While the content of the Water Watch program remains the same, I'm working to give it a new look. In the next few months, watch for an updated logo, revised materials, a fresh Web site and more recognition for groups. These changes should enhance the already strong program and make participation in Water Watch more valuable to our groups and South Carolina. I welcome any suggestions you may have for



changes you'd like to see or contributions to the Web site or newsletter.

Lastly, Water Watch's newest group is the Upper Savannah Senior Environment Corps (SEC) from Greenwood. The SEC is a self-sustaining senior volunteer program

whose participants are retirees over the age of fifty. The group members come from a variety of backgrounds and are working towards the goal of carrying out community-based activities to tackle an array of environmental concerns and issues in



the area. The SEC is currently planning a large-scale storm drain tagging effort centered in Greenwood, which will then eventually spread throughout the Upper Savannah region. Join me in welcoming the SEC, who continue to make Water Watch a success.

For more information, contact Meredith at (803) 898-4211 or barklemb@dhec.sc.gov.

Student Event to Focus on Green Space Issues

Green Space: Good for You, Good for South Carolina is the theme for the 2004 Champions of the Environment Environmental Awareness Competition (EAC). One of the Champions program goals is to encourage students to preserve South Carolina's environment. This year's theme will allow students, teachers and parents to realize the benefits of protecting and preserving green space.

The annual EAC encourages middle school students from across the state to compete in five venues: essay, poster, photography, spokesperson and the quiz bowl. Savings bonds are awarded to winners and finalists. The Competition will be held March 27, 2004, at the Riverbanks Zoo and Garden in Columbia.

For more information about the competition, go to www.scdhec.gov/champions, or call Lynne LaSalle at (803) 898-4394.

SC on Track with NPS Goals

By Doug Fabel, SC DHEC

South Carolina's 2003 annual report to EPA on its nonpoint source management program is now available. This informative report describes progress in meeting the goals of the program, and highlights a number of interesting projects and activities that were implemented during the year.

The report says that the state is on-track toward meeting the long-term NPS goals of prevention and reduction established by the program. Some of the goals include comprehensive assessment of water quality in order to identify NPS impacts and track improvements, addressing pollutants noted on the 303(d) list, developing and implementing nonpoint source Total Maximum Daily Loads (TMDLs),

conducting effective outreach programs and activities, maintaining and expanding partnerships and cooperative opportunities with stakeholders, other agencies, and citizens, assuring effective and efficient use of financial resources and leveraging funds to other programs.

The 2003 Annual Report may be accessed on-line at www.scdhec.gov/water/html/grants.html. Information from the report has been combined with reports from other states in Environmental Protection Agency Region IV (eight southeastern states). The regional report will be published in February 2004 and be available from EPA.

Coming Events



- * 13th Annual Southeastern Lake Management Conference, "Working Together – Sharing Resources," March 7-9, 2004, Isle of Palms, S.C. Go to www.scdhec.gov/water.
- * Conservation Design: A Workshop on Growing Greener Communities, April 13-14, 2004, Raleigh, N.C. Go to www.ncsu.edu/feop.
- * Stormwater: Emerging Issues for Local Communities, April 19-22, 2004, Asheville, N.C. Go to www.soil.ncsu.edu/swetc/stormwaterconf/main.htm.

Turning the Tide
 Bureau of Water
 SC DHEC
 2600 Bull Street
 Columbia, SC 29201
 Editor: Anne Marie Johnson
 Phone: (803) 898-4187
 E-mail: johnsoam@dhec.sc.gov
 Return Service Requested